

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

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1. (Currently Amended) A method, comprising:

installing a program onto a target machine, the program having intermediate representation;

executing the program using the intermediate representation and an initial profile data;  
[[and]]

generating a current profile data;

comparing the current profile data with the initial profile data; and

~~responsive to a change in profile data collected while the program executes which exceeds a predetermined threshold, recompiling the program while the target machine is idle.~~

recompiling the intermediate representation to optimize the program when the current profile data in comparison with the initial profile data has exceeded a predetermined threshold.

2. (Currently Amended) The method of claim 1, wherein [[said]] installing further comprises:

installing a continuous compiler;

installing a runtime monitor;

copying [[an]] the intermediate representation of a source file to the target machine;

building ~~[[a]]~~ the initial profile ~~[[database]]~~ data; and

compiling the intermediate representation to create an executable file.

3. (Currently Amended) The method of claim 1, wherein ~~[[said]]~~ executing further comprises:

running an executable version of the program;

collecting samples of process information at a controlled rate; and

while the target machine is idle, generating binary level and high level profiles.

4. (Currently Amended) The method of claim 1, wherein recompiling further comprises customizing compiler optimizations based on the current profile data generated during program execution.

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Claims 5-10 (Cancelled)

11. (Currently Amended) A ~~computer-readable~~ machine-readable medium having stored thereon data representing sequences of instructions, the sequences of instructions which, when executed by a ~~processor~~ machine, cause the ~~processor~~ machine to ~~perform the steps~~ of:

installing a program onto a target machine, the program having intermediate representation;

executing the program using the intermediate representation and an initial profile data;

~~[[and]]~~

generating a current profile data;

comparing the current profile data with the initial profile data; and

~~responsive to a change in profile data collected while the program executes which exceeds a predetermined threshold, recompiling the program while the target machine is idle.~~

recompiling the intermediate representation to optimize the program when the current profile data in comparison with the initial profile data has exceeded a predetermined threshold.

12. (Currently Amended) The ~~computer-readable~~ machine-readable medium [[of claim]] of claim 11, wherein [[said]] installing further comprises:

installing a continuous compiler;

installing a runtime monitor;

copying [[an]] the intermediate representation of a ~~source file~~ to the target machine;

building [[a]] the initial profile database data; and

compiling the intermediate representation to create an executable file.

13. (Currently Amended) The ~~computer-readable~~ machine-readable medium of claim 11, wherein ~~said~~ executing further comprises:

running an executable version of the program;

collecting samples of process information at a controlled rate; and

while the target machine is idle, generating binary level and high level profiles.

14. (Currently Amended) The ~~computer-readable~~ machine-readable medium of claim 11, wherein recompiling further comprises customizing compiler optimizations based on the current profile data generated during program execution.

Claims 15-20 (Cancelled)

21. (Currently Amended) A system, comprising:

a target machine having a storage device, the storage device having stored therein a routine for transparent continuous compilation; and

a processor coupled [[to]] with the storage device ~~which when executing the routine, the~~ processor to:

[[installs]] install a program onto [[a]] the target machine, the program having intermediate representation and a continuous compiler;

[[executes]] execute the program using the intermediate representation and an initial profile data; [[and]]

generate a current profile data;

compare the current profile data with the initial profile data; and

~~responsive to a change in profile data collected while the program executes which exceeds a predetermined threshold, recompiles the program while the target machine is idle.~~

recompile the intermediate representation to optimize the program when the current profile data in comparison with the initial profile data has exceeded a predetermined threshold.

22. (Currently Amended) The system of claim of claim 21, wherein [[said]] installation further comprises:

installing a continuous compiler;

installing a runtime monitor;

copying ~~[[an]]~~ the intermediate representation ~~of a source file~~ to the target machine;

building ~~[[a]]~~ the initial profile ~~database~~ data; and

compiling the intermediate representation to create an executable file.

23. (Currently Amended) The system of claim 21, wherein ~~[[said]]~~ execution further comprises:

running an executable version of the program;

collecting samples of process information at a controlled rate; and

while the target machine is idle, generating binary level and high level profiles.

24. (Currently Amended) The system of claim 21, wherein recompilation further comprises customizing compiler optimizations based on the current profile data generated during program execution.

Claims 25-30 (Cancelled)

31. (New) An apparatus, comprising:

a storage medium,

a processor coupled with the storage medium, the processor to:

install a program onto the target machine, the program having intermediate representation;

execute the program using the intermediate representation and an initial profile data;

generate a current profile data;

compare the current profile data with the initial profile data; and

recompile the intermediate representation to optimize the program when the current profile data in comparison with the initial profile data has exceeded a predetermined threshold.

32. (New) The apparatus of claim 31, wherein installation further comprises:

installing a continuous compiler;

installing a runtime monitor;

copying the intermediate representation to the target machine;

building the initial profile data; and

compiling the intermediate representation to create an executable file.

33. (New) The apparatus of claim 31, wherein execution further comprises:

running an executable version of the program;

collecting samples of process information at a controlled rate; and

while the target machine is idle, generating binary level and high level profiles.

34. (New) The apparatus of claim 31, wherein recompilation further comprises customizing compiler optimizations based on the current profile data generated during program execution.

35. (New) The apparatus of claim 34, wherein customizing compiler optimizations is performed using annotations in a high level representation of an executable program

which relate portions of the executable to the high level representation.

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